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IC - A23J3/08 ; A23L1/305 ; A61K9/16 ; A61K38/16 ; A61K47/26 ; A61K47/38
MC - B04-C02A2 C04-C02A2 B04-N06 C04-N06 B10-A07 C10-A07 B12-M11D C12-M11D D03-H01T2
M1 - [01] M423 M431 M782 M903 P714 Q211 V600 V631 V752
- [07] A111 A960 C710 H5 H521 H8 J0 J011 J1 J171 M280 M311 M321 M342 M349 M381 M391 M423 M431 M630 M782 M903 M904 M910 P714 Q211 V713; R07352-M; 1835-U
M2 - [02] F012 F013 F014 F015 F016 F123 H4 H405 H423 H484 H5 H521 H8 M280 M311 M315 M321 M332 M342 M344 M373 M383 M391 M413 M431 M510 M521 M530 M540 M782 M903 M904 P714 Q211; R10352-M
- [03] F012 F013 F014 F015 F016 F123 H4 H405 H423 H484 H5 H521 H8 M280 M311 M315 M321 M332 M342 M344 M373 M383 M391 M413 M431 M510 M521 M530 M540 M782 M903 M904 P714 Q211; R03068-M
- [04] H4 H405 H484 H8 K0 L8 L816 L821 L833 M280 M315 M321 M332 M344 M383 M391 M416 M431 M620 M782 M903 M904 M910 P714 Q211; R00290-M; 0290-U
- [05] H4 H401 H481 H8 M225 M231 M272 M281 M320 M416 M431 M620 M782 M903 M904 M910 P714 Q211; R02069-M; 2069-U
- [06] H4 H405 H484 H8 K0 L8 L814 L821 L833 M280 M315 M321 M332 M344 M383 M391 M416 M431 M620 M782 M903 M904 M910 P714 Q211; R00032-M; 0032-U
PA - (TOKU-N) TOKUSHU MENEKI KENKYUSHO KK
PN - JP8253423 A 19961001 DW199649 A61K38/16 008pp
PR - JP19950037499 19950119
XA - C1996-154124
XIC - A23J-003/08 ; A23L-001/305 ; A61K-009/16 ; A61K-038/16 ; A61K-047/26 ; A61K-047/38
AB - J08253423 Food and granules comprise lactoferrin and non-reducing sugar gp. Also claimed is the prepn. of lactoferrin contg. food and medical granules by adding water and for ethanol to finely crushed lactoferrin and non-reducing sugar gp., and by drying.
- Non-reducing sugar gp. is pref. sorbitol, mannitol, palatinit, maltitol, and lactitol. The granulation is carried out by spraying water and/or ethanol or soln. contg. caking agent to finely crushed lactoferrin and non-reducing sugar gp. in the fluid layer. Caking agent is pref. sodium carboxymethyl cellulose.
- USE/ADVANTAGE - Lactoferrin is widely used as food, oral drug, reagent, medical material, or medicine for animals. Lactoferrin is easily granulated without reducing its biological activity.
- In an example freeze-dried lactoferrin derived from bovine milk (purity 90%) (50 g) was crushed to a size of less than 100 micron, and mixed with glucose powder of the same particle size (250 g) and 100% ethanol (500 ml). It was kneaded, passed through a sieve (#15 mesh), and dried by through-flow at less than 40 deg C to give lactoferrin contg. granules. The obtd. granules (the control) and the granules

(example) obtd. by using sorbitol powder instead of glucose powder were sealed at 50 deg C for 7 days, and observed the forms of peaks of lactoferrin by HPLC. The results showed that the example using sorbitol kept the same shape of the original lactoferrin powder, whereas the control using glucose caused denaturation.(Dwg.1/3)

CN - R10352-M R03068-M R00290-M R02069-M R00032-M R07352-M

DRL - 0290-U 2069-U 0032-U 1835-U

IW - FOOD GRANULE COMPRISE LACTOFERRIN NON REDUCE SUGAR GROUP PREPARATION ADD WATER ETHANOL FINE CRUSH LACTOFERRIN SUGAR GROUP DRY

IKW - FOOD GRANULE COMPRISE LACTOFERRIN NON REDUCE SUGAR GROUP PREPARATIO ADD WATER ETHANOL FINE CRUSH LACTOFERRIN SUGAR GROUP DRY

NC - 001

OPD - 1995-01-19

ORD - 1996-10-01

PAW - (TOKU-N) TOKUSHU MENEKI KENKYUSHO KK

TI - Food and granules comprising lactoferrin and non reducing sugar gp. - prepd. by adding water and/or ethanol to finely crushed lactoferrin and sugar gp. and drying.